

BA Festival of Science, Norwich, 2006:

Report and Evaluation

of Young Peoples Programme 8-13 yrs.

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Teacher Scientist Network (TSN)



the **BA**
british association for the
advancement of science

the **BA**
festival
of science
2-9 sept 06



THE BA FESTIVAL OF SCIENCE PROGRAMME FOR SCHOOLS
AT THE UNIVERSITY OF EAST ANGLIA

Organised by



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NORWICH
City Council



East of England Development Agency

The BA's Registered Charity No. 212479

Summary:

The Teacher Scientist Network (TSN) ran a highly successful programme for 8-13 year olds at the BA Festival of Science in Norwich. The 3-day programme of events attracted 2906 pupils from 62 schools across East Anglia. Schools in Norfolk, Suffolk, Cambridgeshire, Essex and Hertfordshire were represented and 3 groups of home educators attended. Responses from teachers rated the event as excellent [average score, 4.55 out of 5], and good value for money.

Particularly given that the event fell in the very first week of the school term, it was a great success for our region's schools, providing an almost unique opportunity for pupils and their teachers to attend hands-on workshops and science shows, meet with scientists and see how science affects their everyday lives. An extensive and diverse range of activities was offered.

Whilst considered successful, there is the potential to attract many more pupils, particularly those from years 7 and 8 (who were under-represented), by holding the Festival 1 or 2 weeks later. TSN urges the organising authorities within the BA to actively consider the timing issue at future festivals, particularly given the evidence supporting how important it is to engage 11-13 year olds in science to maintain uptake in science GCSEs and beyond.

Background

The Teacher Scientist Network (TSN) was awarded the contract to coordinate the 8-13 programme at the British Association (BA) Festival of Science in May 2005 (from herein referred to as the Festival). It was unusual for the BA to work with school organisations other than the local SETPOINT, but TSN's key position within the organisations of the Norwich Research Park and its experience at staging large events for pupils of this age (Science & Survival series, 1997 – 2005 inc.) together with our enthusiasm to lead this event, prevailed. The original remit required us to provide a minimum of 27 workshops/shows thereby providing places for 4000 pupils aged 8-13 yrs (Years 4-8 inc.) over 4 days.

Due to the timing of the Festival (2-9th September 2006), which encompassed the first week of the new school year, the BA and TSN agreed that the Young People's Programme would be a 3 day event from Wednesday 6th - Friday 8th September.

Additionally, TSN worked jointly with the BA to administer a 'family science day' on Saturday 9th September using certain providers from the Young People's Programme. (This event, '*Something for the Weekend*' is not subject to further scrutiny in this report but on the basis of word-of-mouth feedback was considered successful, with teachers commenting in their Evaluations that many pupils had returned on the Saturday with relatives)

Advance Publicity

Word-of-mouth awareness-raising began in March 2005 and the following list highlights events at which information about the Young Peoples Programme was given. It should be noted that in addition to the event itself, by offering presentations at ASE conferences the details of the Festival appeared in their conference programme, which is read by more than just those attending the session.

Conference Style presentations

- October 11th 2005, TSN Annual Meeting, Norwich, Norfolk
- October 15th 2005, ASE Regional Meeting, Homerton, Cambridge
- March 20th 2006, Science subject-leader conference, Norwich, Norfolk
- March 26th 2006, ASE Regional Meeting, Chelmsford, Essex
- June 20th 2006, Regional Heads of Science, Mildenhall, Suffolk

Written publicity

- The TSN newsletter, TSNews (which is distributed to approximately 200 teachers across Norfolk and North Suffolk), profiled the Festival in 2 editions in advance of the Festival: Autumn 2005 (no. 20) and early Summer 2006, (no.21, inc. personal copies of the programme for TSN teachers)
- Paragraph of information in SETPOINT/The Exchange newsletter (termly)
- TSN website, 'News & events' – 18 month lead-in.
- Website of the East of England Science Learning Centre
- Norfolk County Council education website, Esinet

Programme Preparation and distribution

We obtained initial Expressions of Interest for workshop participants in the Festival between Summer 2005 and January 2006. Anyone who contacted the BA directly had their details passed to TSN by phone/email. Commitments to provide workshops/shows were finalised between January and March 2006.

At a meeting with the BA in February 2006, it was agreed that a single schools programme would be produced with the 8-13 and 14-19 programme components distinguished by contrasting pages of colour; this worked well. The programme was to be distributed to all schools in the 6 counties of the region served by the East of England Science Learning Centre (SLC), namely Norfolk, Suffolk, Essex, Cambridgeshire, Hertfordshire and Bedfordshire. This covered almost all schools within a 2 hour driving distance from Norwich. Retrospectively, those schools from Southern Lincolnshire should also have received the information directly (as they fall within the 2 hour radius but outside the region covered by the regional SLC). The East of England Development Agency were keen that we worked with the SLC, which we were keen to do (TSN is also formally a regional satellite centre of the SLC), and the SLC provided address labels for mailing of the programme.

TSN teacher members also received copies of the programme with their Easter edition of TSNews 21 which filled some apparent gaps in the distribution of the programme. During the summer term (April – July 2006) a number of schools, particularly primary schools said they had not heard about the Festival. This raises a number of issues regarding distribution of the programme (the prime marketing tool for the Festival) that were outside of the control of TSN.

- How all-inclusive was the distribution list provided by the SLC?
- Out of 3000+ programmes sent out, how many were lost in the post?
- Was the correct person at each school contacted?
- Was a generic form of addressing used (Science Coordinator/Head of Science) or named contacts?

The time between final proofing of the programme and its distribution was hampered by sponsorship issues and it is difficult to assess the impact of this 4 week delay in distribution but it did ultimately reduce the time available for teachers to study the programme and book a visit. Analysis of teacher responses to this issue in the evaluation forms did not highlight it as a major problem, although some did comment that information reached them 'later than ideal'

Management of bookings

The final programme offered 226 sessions across 3 days with a total of 53 different workshops. With such an extensive choice the employment of a person dedicated to manning the booking hotline was critical to the success of the schools programme. TSN employed Helen Reynolds to fulfil this role who was dedicated, thorough and showed great attention to detail. This post was part-time, with a variable number of hours per week according to demand. Helen's willingness to help plan individual visits, particularly as certain sessions became full, contributed greatly to the success of the Festival for schools.

Supporting Attendance

An additional requirement of our contract was to try to facilitate attendance at the Festival by schools who would not normally attend such events, usually on grounds of social deprivation. Together with the University of East Anglia we applied for grants from Anguish's Educational Foundation (£1000), the John Jarrold Trust Limited (£1000) and Norwich's Town Close Estate Charity (£2000). Two out three of these applications were successful with full awards being received from Anguish and the John Jarrold Trust (total, £2000). This aided a total of 634 pupils from 6 different schools from across Norfolk to attend the Festival, and these initiated some post-Festival contacts for the future.

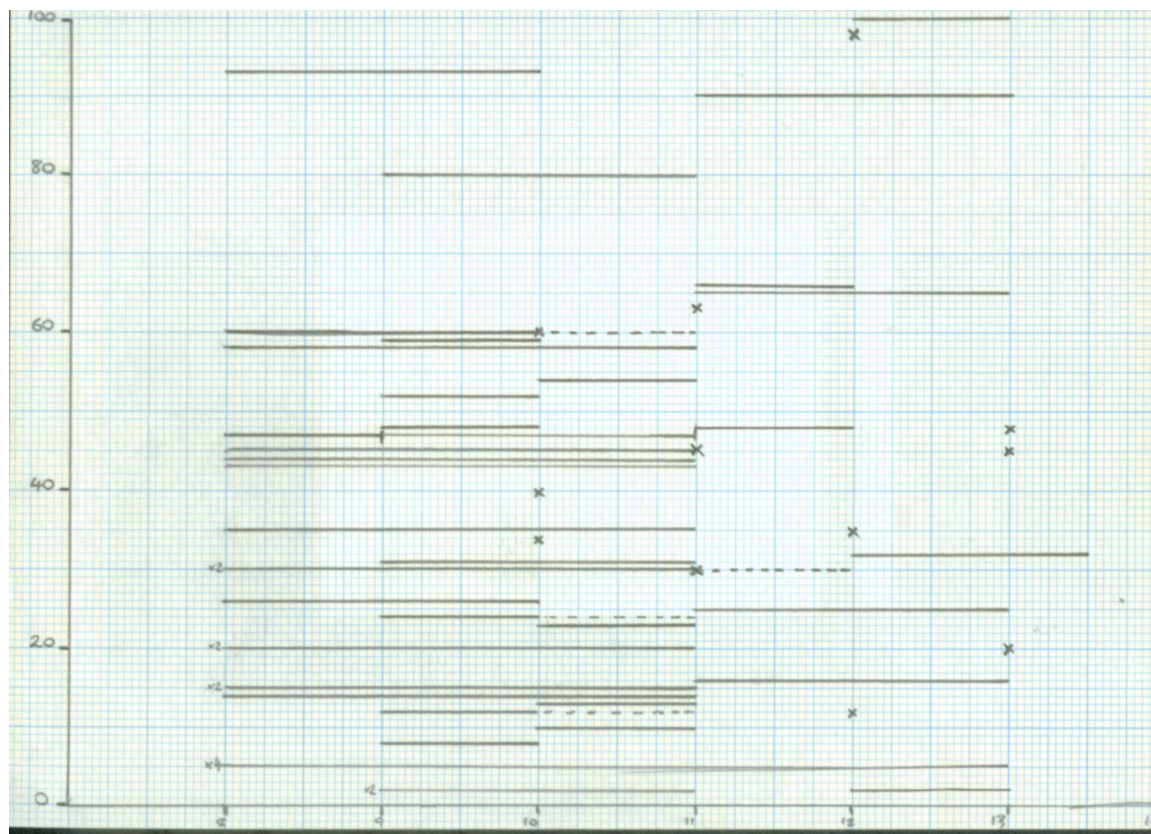
Critical Analysis

The 3-day programme of events attracted 2906 pupils from 62 schools from across East Anglia. TSN considers that the timing of the festival has hindered the potential impact it could have had on local schools. This represents a missed opportunity given the time and effort that goes into preparing such an extensive programme for school children. While target numbers were reached, we have looked at the age distribution of those who attended the Festival, which clearly shows that years 7 & 8 (>11 yrs) were under-represented.

Age group	Total number of pupils	Number of schools in this category
8-9	47	1
8-10	179	3 (1)*
8-11	429	13
8-12	5	1
8-13	15	3
9-10	203	6 (1)
9-11	308	8 (1)
9-12	30	1
10-11	483	12 (2)
Total <11	1699	48 (5)
10-12	24	1
11	138	3
11-12	114	2
11-13	539	5 (2)
12	145	3 (1)
12-13	134	3
13	113	3 (1)
Total >11	1207	20 (4)

- () number in parentheses indicates schools from independent sector: 9/62 (14.5%), some of whom brought more than one age group.

The data summarised in this table has been represented visually in the figure below, plotting the age group of pupils (x-axis, 8-13) against the number of pupils in this group for each school who booked a group into the 8-13 programme (y-axis, 0-100). It should be noted that the figure omits data from 2 schools who bought groups of 150 and 343 respectively (which would have skewed the distribution of values on the y-axis). The group of 150 were aged between 10 and 11 years, while the 343 were aged between 11 and 13 yrs and belonged to a school with science college status and whose visit organiser was a member of the TSN Steering group and brought the whole school.



Taking account of the omitted data, there remains a distinct cut-off at aged 11 that we believe is attributable to the timing of the Festival. Year 7 (11-12 yrs) are usually the new intake to a high school and few teachers would be able/willing to take unfamiliar pupils out on visits so early in the school year.

From the early stages of talking to teachers about the Festival, many commented how badly timed it was for schools to attend. Some went as far as to say “sounds great, but we cannot possibly bring our pupils out in the first week of term”

The TSN Steering Group, a mixture of teachers and scientists who guide our activities, formally minuted the opinion that holding the festival just 1 week later into the school term would make a huge impact on the potential number of pupils who could benefit from the event.

The increasing numbers of pupils that attended from the Wednesday (738), through Thursday (963) and into Friday (1205) adds further support to the difficulties faced by schools attending events in the first week of a new academic year.

Evaluation Forms

All schools attending the Festival received an Evaluation form, a copy of which follows this report.

62 different schools attended the Festival, 9 of these schools were from the independent sector (14.5%). Evaluation forms were returned from 33/62 schools (a 53.2% return rate). It is estimated that these 33 teachers brought 1520 pupils, who represent 52.2% of the total number of pupils booked into workshops/shows. The following assessment of the Festival is based upon these returns.

When asked to rate their overall experience at the Festival, on a scale of 0 (poor) to a maximum of 5 (excellent), the average response was 4.55. The vast majority of responses being 4's or 5's: a highly satisfied set of attendees. Additional comments indicated that many people viewed the event as an enrichment activity and a chance to enthuse and inspire their pupils in science.

When asked if the Festival was fairly priced (ie. was it value for money) 13/33 commented most definitely, 13/33 thought it was fair and only 1 school felt it was too expensive (when combined with coach costs), (2 failed to answer this question, and more than 1 form was returned by some schools).

When asked to rate the service provided by Helen (managing bookings) on a scale of 0 (poor) to a maximum of 5 (excellent), the average response was 4.3 with a number of additional comments about just how helpful she had been.

Everybody who used the hands-on exhibition commented about how much their children loved it, and how they wanted more time to spend there. A few commented about the lack of space, possibly reflecting its popularity, but there was no larger venue available across campus! One teacher described it as “an unexpected delight”

A number of teachers commented that their first choice of activity was fully-booked when they tried to book. This was unfortunate but outside of the control of TSN. Room allocations and the wishes of those providing the workshops dictated the numbers in each session. The BA Festival assistant did an amazing job with the rooms available to the event, helping us juggle rooms and time slots. More seminar rooms, with loose tables & chairs able to accommodate groups of 24+ would have been helpful.

The rest of the form attempted to explore how successful the advance marketing had been and what sources teachers had used to make them aware of the event. A range of responses was received. The three most dominant responses (which accounted for 80% of the responses) were brochure sent to school, TSN, mailshot (which maybe the same as the brochure).

Recommendations for the Future

- Avoid the first week of term
- Maintain greater in-house control over the mailing list – request information directly from the LEAs and decide upon extent of programme distribution by driving distance from the event (& not county).
- Endeavour to get programme into schools as soon as possible after Easter holidays
- As many rooms as possible able to accommodate groups of 24+ need to be offered to the 8-13 programme
- Events should be advertised as 8-11 yrs and 11-13 yrs., and not 8-13 yrs. – this may help attract more pupils aged 11+ yrs. and will ensure presentations are more focussed.

EVALUATION, 8-13 BA Festival – Wed / Thur / Fri (please circle)

Teacher name & School	
No. pupils & age group	
How did you hear about the festival?	
Was this about right, too early, too late?	
When did you receive your programme?	
Was this about right, too early, too late?	
How would you rate the booking procedure? (1. poor ; 5: excellent)	
How would you rate the choice in the programme? Too much/too little/OK/no comment	
Please give an overall score for each activity you attended (1. poor ; 5: excellent)	Activity 1: Activity 2: Activity 3:
Please add any comments for each activity you attended	Activity 1: Activity 2: Activity 3:
Did you use the 'hands-on' exhibition, please comment	
Was the Festival fairly priced – please comment, was it value for money?	
Please add here any comments from your pupils (continue on rear if necessary)	
Overall, please rate your experience at the FoS (1. poor ; 5: excellent)	

**Please return by
email to phil.smith@bbsrc.ac.uk
Fax to 01603 450045**

or post to: Teacher Scientist Network, John Innes Centre, Colney Lane, Norwich, NR4 7UH

**YOU FEEDBACK IS REALLY IMPORTANT TO US
THANK YOU!**

We hope you enjoyed your visit to the Festival of Science